

## **Section 2: Communication and Data Exchange Technical Specifications and Interchange Control Structure**

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### **Communication Overview**

This section identifies the different methods of data transmission available for submitting and receiving transaction data to and from ISDH. ISDH accepts asynchronous batch submissions utilizing Kermit, Zmodem or Xmodem.

A separate outbound response (271, 277, 278 and 835) will be provided to the trading partner per interchange that is submitted.

The following documentation is designed to assist developers with customizing standard asynchronous communications packages to enable connectivity to the ISDH network.

### **Kermit, Zmodem and Xmodem**

The following tables illustrate the ISDH prompts and the expected provider responses for both submission (upload) and retrieval (download) of files. The exact procedure for responding to each prompt varies according to the selected communications package.

Table 2.1 – Data File Submission

<b>Remote System</b>	<b>Host (ISDH) System</b>
Dial 3172334993 and receive connect from modem	LOGIN:
Enter LOGIN ID<CR>	PASSWORD:
Enter PASSWORD<CR>	AECN: START
If Kermit, transmit sndkermit or transmit sndupkermit depending on your communications script.  If Zmodem, transmit sndzmodem  If Xmodem, transmit sndxtalk	AECN: OK
Initiate the file transfer (this is dependent upon the communication software used).	AECN: RECEIVED CLAIMS
MAILIT<CR>	AECN: SENDING ACTIVITY REPORT Or AECN: SENDING REPORT/MAIL
Initiate the file transfer (this is dependent upon the communication software used).	AECN: LOGGING OFF

Table 2.2 – Data File Retrieval

Remote System	Host (ISDH) System
Dial 3172334993 and receive connect from modem	LOGIN:
Enter LOGIN ID<CR>	PASSWORD:
Enter PASSWORD<CR>	AECN: START
If Kermit, transmit rcvkermit or transmit rcvupkermit depending on your communications script.  If Zmodem, transmit rcvzmodem  If Xmodem, transmit rcvxtalk	AECN: SENDING REPORT/MAIL
Initiate the file transfer (this is dependent upon the communication software used).	AECN: REPORT SENT
GOTREPORT<CR>	AECN: SENDING ACTIVITY REPORT Or AECN: SENDING REPORT/MAIL
Initiate the file transfer (this is dependent upon the communication software used).	AECN: LOGGING OFF

Table 2.3 – Remittance File Retrieval

Remote System	Host (ISDH) System
Dial 3172334993 and receive connect from modem	LOGIN:
Enter LOGIN ID<CR>	PASSWORD:
Enter PASSWORD<CR>	AECN: START
If Kermit, transmit paykermit or transmit payupkermit depending on your communications script.  If Zmodem, transmit payzmodem  If Xmodem, transmit payxtalk	AECN: SENDING PAYMENT DATA
Initiate the file transfer (this is dependent upon the communication software used).	AECN: PAYMENT DATA SENT
GOTPAYMENT<CR>	AECN: SENDING ACTIVITY REPORT Or AECN: SENDING REPORT/MAIL

Initiate the file transfer (this is dependent upon the communication software used).	AECN: LOGGING OFF
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## Data Exchange Overview

*Appendix A, Section A.1.1* of each *X12N HIPAA Implementation Guide* provides detail about the rules for ensuring integrity and maintaining the efficiency of data exchange. Data files are transmitted in an *electronic envelope*. The communication envelope consists of an interchange envelope and functional groups. The interchange control structure is used for inbound and outbound files. An inbound interchange control structure is the envelope that wraps all transaction data (ST-SE) sent to ISDH for processing. An outbound interchange control structure wraps transactions that are created by ISDH and returned to the requesting provider. The following tables define the use of this control structure as it relates to communication with ISDH.

## Inbound Transactions

Segment Name	Interchange Control Header		
Segment ID	ISA		
Loop ID	N/A		
Usage	Required		
Segment Notes	<p>The ISA is a fixed record length segment, and all positions within each of the data elements must be filled. Delimiters are specified in the interchange header segment.</p> <p>The character immediately following the segment ID, <i>ISA</i>, defines the data elements separator. The component element separator is defined in the last character in the segment, and the segment terminator is the byte that immediately follows the component element separator. Examples of the separators are as follows:</p>		
	Character	Name	Delimiter
	*	Asterisk	Data Element Separator
	:	Colon	Subelement Separator
	~	Tilde	Segment Terminator
While it is not required that submitters use these specific delimiters, they are the ones that the ISDH uses on all outbound transactions.			
Example	ISA*00*00*ZZ*ABCZZ*ISDH *930602*1253*U*00401*000000999*1*P*:~		

Element ID	Usage	Guide Description/Valid Values	Comments
ISA01	R	Authorization Information Qualifier <b>00</b> – No Authorization Information Present	
ISA02	R	Authorization Information Insert 10 blanks	Always blank. Insert 10 blank spaces.
ISA03	R	Security Information Qualifier <b>00</b> – No Security Information Present	
ISA04	R	Security Information Insert 10 blanks	Always blank. Insert 10 blank spaces.
ISA05	R	Interchange ID Qualifier <b>ZZ</b> - Mutually Defined	
ISA06	R	Interchange Sender ID	This is the sender ID that is assigned to the trading partner by ISDH. This field has a required length of 15 bytes; therefore, the field must be padded with spaces to the right.
ISA07	R	Interchange ID Qualifier	

Element ID	Usage	Guide Description/Valid Values	Comments
		<b>ZZ</b> - Mutually Defined	
ISA08	R	Interchange Receiver ID <b>ISDH</b>	This field has a required length of 15 bytes; therefore, it will be padded with 11 spaces to the right.
ISA09	R	Interchange Date	
ISA10	R	Interchange Time	
ISA11	R	Interchange Control Standards Identifier <b>U</b> - U.S. EDI Community of ASC X12, TDCC, and UCS	
ISA12	R	Interchange Control Version Number <b>00401</b> – Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997	
ISA13	R	Interchange Control Number	The interchange control number is created by the submitter and must be identical to the associated Interchange Trailer (IEA02). This 9 byte field is numeric and must be zero filled. This number should be unique and increment by 1 with each ISA segment.
ISA14	R	Acknowledgment Requested <b>0</b> - No acknowledgment requested <b>1</b> - Interchange Acknowledgment Requested	ISDH always creates an acknowledgment file for each functional group received regardless of whether this field is set to 0 or 1.
ISA15	R	Usage Indicator <b>P</b> - Production Data <b>T</b> - Test Data	During testing the usage indicator entered must be <b>T</b> . After testing approval, <b>P</b> must be entered.
ISA16	R	Component Element Separator	The component element separator is a delimiter and not a data element. This field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator.

Segment Name	Functional Group Header
Segment ID	GS
Loop ID	N/A
Usage	Required
Segment Notes	
Example	GS*HS*ABC*CSHCS*20020606*105531*1*X*004010X092A1~

Element ID	Usage	Guide Description/Valid Values	Comments
GS01	R	Functional Identifier Code <b>HS</b> - Eligibility, Coverage or Benefit Inquiry (270) <b>HR</b> – Health Care Status Request (276) <b>HI</b> – Health Care Services Review (278) <b>HC</b> – Health Care Claim (837)	Enter the appropriate identifier to designate the type of transaction data to follow the GS segment.
GS02	R	Application Sender's Code	This is the sender ID that is assigned to the trading partner by the ISDH. This may or may not match the ISA06
GS03	R	Application Receiver's Code <b>CSHCS</b>	Children's Special Health Care Services
GS04	R	Date	
GS05	R	Time	
GS06	R	Group Control Number	Assigned number originated and maintained by the sender. This must match the number in the corresponding GE02 data element on the GE group trailer segment.
GS07	R	Responsible Agency Code <b>X</b> – Accredited Standards Committee X12	
GS08	R	Version/Release/Industry Identifier Code <b>004010X092A1</b> – Health Care Eligibility Benefit Inquiry (270) <b>004010X093A1</b> – Health Care Claim Status Request (276) <b>004010X094A1</b> – Health Care Services Review – Request for Review (278) <b>004010X096A1</b> – Health Care Claim: Institutional (837) <b>004010X097A1</b> – Health Care Claim: Dental (837) <b>004010X098A1</b> – Health Care Claim: Professional (837)	This data element contains the appropriate identifier to designate the identifier code for the type of transaction data to follow the GS segment.

Segment Name	Functional Group Trailer
Segment ID	GE
Loop ID	N/A
Usage	Required
Segment Notes	
Example	GE*1*1~

Element ID	Usage	Guide Description/Valid Values	Comments
GE01	R	Number of Transaction Sets Included	Enter the number of transaction sets included in this functional group.
GE01	R	Group Control Number	Group control number GE02 in this trailer must be identical to the same data element in the associated functional group header, GS06.

Segment Name	Interchange Control Trailer		
Segment ID	IEA		
Loop ID	N/A		
Usage	Required		
Segment Notes			
Example	IEA*1*000000999~		
Element ID	Usage	Guide Description/Valid Values	Comments
IEA01	R	Number of Included Functional Groups	Enter the number of functional groups included in this interchange envelope.
IEA02	R	Interchange Control Number	Interchange control number IEA02 in this trailer must be identical to the same data element in the associated interchange control header, ISA13, including padded zeros.

## Outbound Transactions

Segment Name	Interchange Control Header		
Segment ID	ISA		
Loop ID	N/A		
Usage	Required		
Segment Notes	The ISA is a fixed record length segment, and all positions within each of the data elements must be filled. Delimiters are specified in the interchange header segment. The ISDH always uses the following delimiters in outbound transactions.		
	Character	Name	Delimiter
	*	Asterisk	Data Element Separator
	:	Colon	Subelement Separator
	~	Tilde	Segment Terminator
Example	ISA*00*                    *00*                    *ZZ*ISDH                    *ZZ*ABC *930602*1253*U*00401*000000999*1*P*:~		

Element ID	Usage	Guide Description/Valid Values	Comments
ISA01	R	Authorization Information Qualifier <b>00</b> - No Authorization Information Present	
ISA02	R	Authorization Information	This field always includes 10 blank spaces.
ISA03	R	Security Information Qualifier <b>00</b> - No Security Information Present	
ISA04	R	Security Information	This field always contains 10 blank spaces.
ISA05	R	Interchange ID Qualifier <b>ZZ</b> - Mutually Defined	
ISA06	R	Interchange Sender ID <b>ISDH</b>	This field has a required length of 15 bytes; therefore it will be padded with 11 spaces to the right.
ISA07	R	Interchange ID Qualifier <b>ZZ</b> - Mutually Defined	
ISA08	R	Interchange Receiver ID	This is the receiver ID as assigned to the trading partner by ISDH. It is also the same as the ISA06 from the inbound transactions that the trading partner sent to ISDH. This field has a required length of 15 bytes; therefore, the field must be padded with spaces to the right.
ISA09	R	Interchange Date	The date format is YYMMDD.
ISA10	R	Interchange Time	The time format is HHMM.
ISA11	R	Interchange Control Standards Identifier	



Element ID	Usage	Guide Description/Valid Values	Comments
		U - U.S. EDI Community of ASC X12, TDCC, and UCS	
ISA12	R	Interchange Control Version Number <b>00401</b> – Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997	
ISA13	R	Interchange Control Number	This number is unique and increments by 1 with each ISA segment. It also matches the interchange control number of the IEA02 of the interchange control trailer.
ISA14	R	Acknowledgment Requested <b>1</b> - Interchange Acknowledgment Requested	
ISA15	R	Usage Indicator <b>P</b> - Production Data <b>T</b> – Test Data	During testing the usage indicator is <b>T</b> . After the trading partner is approved, the usage indicator is <b>P</b> .
ISA16	R	Component Element Separator	The component element separator is a delimiter and not a data element. This is always a colon (:).

Segment Name	Functional Group Header
Segment ID	GS
Loop ID	N/A
Usage	Required
Segment Notes	
Example	GS*HB*CSHCS*ABC*20020606*105531*1*X*004010X092A1~

Element ID	Usage	Guide Description/Valid Values	Comments
GS01	R	Functional Identifier Code <b>HB</b> – Eligibility, Coverage or Benefit Information (271) <b>HN</b> – Health Care Claim Status Notification (277) <b>HI</b> – Health Care Services Review (278) <b>HP</b> – Health Care Claim Payment/Advice (835)	The data element contains the appropriate identifier to designate the type of transaction data to follow the GS segment.
GS02	R	Application Sender's Code <b>CSHCS</b>	Children's Special Health Care Services
GS03	R	Application Receiver's Code	This is the receiver id that is assigned to the trading partner by ISDH. It is also the same value as the GS02 from inbound transactions sent to ISDH from the trading partner
GS04	R	Date	The date format is YYMMDD.
GS05	R	Time	The time format is HHMM.
GS06	R	Group Control Number	This data element contains a uniquely assigned number and matches the number in the corresponding GS02 data element on the GE group trailer segment.
GS07	R	Responsible Agency Code <b>X</b> – Accredited Standards Committee X12	
GS08	R	Version / Release / Industry Identifier Code <b>004010X092A1</b> – Health Care Eligibility Benefit Response (271) <b>004010X093A1</b> – Health Care Claim Status Response (277) <b>004010X094A1</b> – Health Care Services Review – Response (278) <b>004010X091A1</b> – Health Care Claim Payment/Advice (835)	This data element contains the appropriate identifier to designate the identifier code for the type of transaction data to follow the GS segment.

Segment Name	Functional Group Trailer
Segment ID	GE
Loop ID	N/A
Usage	Required
Segment Notes	
Example	GE*1*1~

Element ID	Usage	Guide Description/Valid Values	Comments
GE01	R	Number of Transaction Sets Included	This data element contains the number of transaction sets included in this functional group.
GE02	R	Group Control Number	Group control number GE02 in this trailer is identical to the same data element in the associated functional group header, GS06.

Segment Name	Interchange Control Trailer
Segment ID	IEA
Loop ID	N/A
Usage	Required
Segment Notes	
Example	IEA*1*000000999~

Element ID	Usage	Guide Description/Valid Values	Comments
IEA01	R	Number of Included Functional Groups	This data element contains the number of functional groups included in this interchange envelope.
IEA02	R	Interchange Control Number	The interchange control number IEA02 in this trailer is identical to the same data element in the associated interchange control header, ISA13 (including padded zeros).